

Claims

1. A spark plug comprising:

a center electrode; and

a side electrode located on at least one side of said
5 center electrode so that a spark discharge gap is formed between
said center electrode and said side electrode, wherein:

at least one of said center electrode and said side
electrode includes a precious metal member facing said spark
discharge gap; and

10 said precious metal member contains Ir as a main
component, 0.3 mass% to 43 mass% of Rh, 5.2 mass% to 41 mass%
of Ru, and 0.4 mass% to 19 mass% of Ni.

2. The spark plug as claimed in claim 1, wherein said
15 precious metal member contains Ir as a main component, 0.5 mass%
to 36 mass% of Rh, 5.2 mass% to 36 mass% of Ru, and 0.4 mass%
to 11 mass% of Ni.

3. The spark plug as claimed in claim 1, wherein said
20 precious metal member contains Ir as a main component, 1.0 mass%
to 31 mass% of Rh, 5.2 mass% to 31 mass% of Ru, and 0.4 mass%
to 7 mass% of Ni.

4. The spark plug as claimed in claim 1, wherein said
25 precious metal member contains Ir as a main component, 6.5 mass%

to 22 mass% of Rh, 5.2 mass% to 24 mass% of Ru, and 0.4 mass% to 3.5 mass% of Ni.

5 4. The spark plug as claimed in any one of claims 1 to 4, wherein said precious metal member contains 8 mass% to 20 mass% of Ru.

10 5. The spark plug as claimed in any one of claims 1 to 5, wherein said precious metal member contains at least one of Pt, Pd, Re and Os.

15 6. The spark plug as claimed in any one of claims 1 to 6, wherein said precious metal member contains an oxide (inclusive of a composite oxide) of an element selected from Sr, Y, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Ti, Zr and Hf.

20 7. The spark plug as claimed in claim 6, wherein said precious metal member contains at least one of Y_2O_3 , La_2O_3 , ThO_2 and ZrO_2 .

25 8. A spark plug comprising:
a center electrode; and
a side electrode located on at least one side of said center electrode so that a spark discharge gap is formed between

said center electrode and said side electrode, wherein:

at least one of said center electrode and said side electrode includes a precious metal member facing said spark discharge gap; and

5 said precious metal member contains Ir as a main component, and Rh, Ni and Ru in a range of from 8 mass% to 20 mass%.

10 10. The spark plug as claimed in claim 9, wherein a content of Ni contained in said precious metal member is not smaller than 0.4 mass% and smaller than a content of Ru contained in said precious metal member.

15 11. The spark plug as claimed in claim 9 or 10, wherein a content of Rh contained in said precious metal member is not smaller than 0.3 mass% and not larger than a content of Ru contained in said precious metal member.